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Group Art Unit: 3739

Attorney  
Docket: 29752

Attorney  
Docket: 29752

Examiner: COHEN, LEE S

## INFORMATION DISCLOSURE STATEMENT

Enclosed is a PTO Form 1449 which lists citations which may be material to the patentability and examination of the above identified application. Also enclosed are copies of the references cited. These are submitted in compliance with the duty of disclosure defined in 37 CFR 1.56. The Examiner is requested to make these citations of official record in this application.

This Information Disclosure Statement under 37 CFR 1.56 is not to be construed as a representation that a search has been made, that additional matter which is material to the examination of this application does not exist, or that any or more of these citations constitutes prior art.

Respectfully submitted,

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Dated: July 26, 2006

**SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**



PTO/SB/08b (08-03)

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| Substitute for form 1449A/PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(use as many sheets as necessary)</i> |                       |                                                                                                                                                                                                                                                               |   | Complete if Known      |                       |                |
|                                                                                                                                               |                       |                                                                                                                                                                                                                                                               |   | Application Number     | 10/534,127            |                |
|                                                                                                                                               |                       |                                                                                                                                                                                                                                                               |   | Filing Date            | November 18, 2005     |                |
|                                                                                                                                               |                       |                                                                                                                                                                                                                                                               |   | First Named Inventor   | BEN-JACOB Eshel et al |                |
|                                                                                                                                               |                       |                                                                                                                                                                                                                                                               |   | Group Art Unit         | 3739                  |                |
|                                                                                                                                               |                       |                                                                                                                                                                                                                                                               |   | Examiner Name          | COHEN, LEE S          |                |
| Sheet                                                                                                                                         | 2                     | Of                                                                                                                                                                                                                                                            | 2 | Attorney Docket Number |                       | 29752          |
| OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS                                                                                             |                       |                                                                                                                                                                                                                                                               |   |                        |                       |                |
| Examiner Initials                                                                                                                             | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published. |   |                        |                       | T <sup>2</sup> |
|                                                                                                                                               | 1                     | Canepari et al. "Experimental Analysis of Neural Dynamics in Cultured Cortical Networks and Transitions Between Different Patterns of Activity", Biological Cybernetics, 77: 153-162, 1997.                                                                   |   |                        |                       |                |
|                                                                                                                                               | 2                     | Hamill et al. "Improved Patch-Clamp Techniques for High-Resolution Current Recording From Cells and Cell-Free Membrane Patches", Pflugers Archives, 391(2): 85-100, 1981. Abstract.                                                                           |   |                        |                       |                |
|                                                                                                                                               | 3                     | Huang et al. "Growth of Highly Oriented Carbon Nanotubes by Plasma-Enhanced Hot Filament Chemical Vapor Deposition", Applied Physics Letters, 73(26): 3845-3847, 1998.                                                                                        |   |                        |                       |                |
|                                                                                                                                               | 4                     | Maiti et al. "Measuring Serotonin Distribution in Live Cells With Three-Photon Excitation", Science, 275: 530-532, 1997.                                                                                                                                      |   |                        |                       |                |
|                                                                                                                                               | 5                     | Ren et al. "Growth of A Single Freestanding Multiwall Carbon Nanotube on Each Nanonickel Dot", Applied Physics Letters, 75(8): 1086-1088, 1999.                                                                                                               |   |                        |                       |                |
|                                                                                                                                               | 6                     | Ren et al. "Synthesis of Large Arrays of Well-Aligned Carbon Nanotubes on Glass", Science, 282: 1105-1107, 1998.                                                                                                                                              |   |                        |                       |                |
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|                                                                                                                                               | 9                     | Heuschkel et al. "Buried Microchannels in Photopolymer for Delivering of Solutions to Neurons in A Network", Sensors and Actuators B, 48: 356-361, 1998.                                                                                                      |   |                        |                       |                |
|                                                                                                                                               | 10                    | Jimbo et al. "Simultaneous Measurement of Intracellular Calcium and Electrical Activity From Patterned Neural Networks in Culture", IEEE Transactions on Biomedical Engineering, 40(8): 804-810, 1993.                                                        |   |                        |                       |                |
|                                                                                                                                               | 11                    | Markram et al. "Redistribution of Synaptic Efficacy Between Neocortical Pyramidal Neurons", Nature, 382: 807-810, 1996.                                                                                                                                       |   |                        |                       |                |
|                                                                                                                                               | 12                    | Ren et al. "Large Arrays of Well-Aligned Carbon Nanotubes", Proceedings of 13th International Winter School on Electronic Properties of Novel Materials, Kirchberg/Tirol, AT, P.263-267, Feb.27 - Mar.6, 1999.                                                |   |                        |                       |                |
|                                                                                                                                               | 13                    | Segev et al. "Long Term Behavior of Lithographically Prepared In Vitro Neuronal Networks", Physical Review Letters, 88(11): 118102-1 - 118102-4, 2002.                                                                                                        |   |                        |                       |                |
| Signature                                                                                                                                     |                       |                                                                                                                                                                                                                                                               |   |                        |                       |                |
|                                                                                                                                               |                       |                                                                                                                                                                                                                                                               |   |                        |                       | Considered     |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>. Applicant's unique citation designation number (optional). <sup>2</sup>. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

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